

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/019753

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> A61K31/415, 31/416, 31/4162, 31/4164, 31/4155, 31/417, 31/4172, 31/4184, 45/00, A61P1/04, 9/06, 9/12, 11/02, 11/06, 13/00, 15/00, 15/10, 15/12, 25/08, 25/16, 25/20, 25/22, 25/24, 25/28, 43/00,

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> A61K31/415, 31/416, 31/4162, 31/4164, 31/4155, 31/417, 31/4172, 31/4184, 45/00, A61P1/04, 9/06, 9/12, 11/02, 11/06, 13/00, 15/00, 15/10, 15/12, 25/08, 25/16, 25/20, 25/22, 25/24, 25/28, 43/00,

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

REGISTRY (STN), CA (STN)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                            | Relevant to claim No.  |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| X<br>A    | WO 2003/030937 A1 (ONO PHARMACEUTICAL CO., LTD.),<br>17 April, 2003 (17.04.03),<br>Particularly, page 174, line 3 to page 177, line 18; page 193; page 195, line 24 to page 199, line 24; examples 2 to 13<br>& EP 1438973 A1 | 1, 2, 10-15, 17<br>3-9 |
| X<br>A    | WO 2003/068753 A1 (ONO PHARMACEUTICAL CO., LTD.),<br>21 August, 2003 (21.08.03),<br>Particularly, page 50, line 10 to page 52, line 5; page 57, line 5 to page 62, line 22; examples 1 to 44(1)<br>(Family: none)             | 1, 10-15, 17<br>2-9    |

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
08 March, 2005 (08.03.05)

Date of mailing of the international search report  
22 March, 2005 (22.03.05)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                    | Relevant to claim No.       |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| X<br>A    | JP 11-171865 A (Yoshitomi Pharmaceutical Industries, Ltd.),<br>29 June, 1999 (29.06.99),<br>Particularly, page 69 (compounds 97, 98)<br>(Family: none)                                | 1-5, 7, 8<br>6, 9-15, 17    |
| X<br>A    | US 6410533 B1 (GENZYME CORP.),<br>25 June, 2002 (25.06.02),<br>Particularly, table 2 (Cmpd. No.105, 106)<br>(Family: none)                                                            | 1-5, 8<br>6, 7, 9-15, 17    |
| X<br>A    | JP 2002-510683 A (AUSTRALIAN NUCLEAR SCIENCE & TECHNOLOGY ORGANIZATION),<br>09 April, 2002 (09.04.02),<br>Particularly, pages 27 to 28<br>& WO 1999/051594 A1                         | 1, 10, 11<br>2-9, 12-15, 17 |
| X<br>A    | JP 10-130150 A (Dainippon Pharmaceutical Co., Ltd.),<br>19 May, 1998 (19.05.98),<br>Particularly, page 16, left column, line 41 to<br>page 21, left column, line 29<br>(Family: none) | 1, 10-14<br>2-9, 15, 17     |

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 16  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claim 16 pertains to methods for treatment of the human body by therapy and thus relates to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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International application No.

PCT/JP2004/019753

Continuation of A. CLASSIFICATION OF SUBJECT MATTER  
(International Patent Classification (IPC))

Int.Cl<sup>7</sup> C07D495/04, 409/12, 487/04, 231/38, 231/56, 233/64

(According to International Patent Classification (IPC) or to both national classification and IPC)

Continuation of B. FIELDS SEARCHED

Minimum documentation searched (International Patent Classification (IPC))

Int.Cl<sup>7</sup> C07D495/04, 409/12, 487/04, 231/38, 231/56, 233/64

Minimum documentation searched (classification system followed by classification symbols)

Claims 1-4, 10-15, and 17 involve an extremely large number of compounds.

However, the compounds which are supported by the description in the meaning of Article 6 of the PCT and disclosed in the meaning of Article 5 of the PCT are limited to an extremely small part of the compounds claimed.

Consequently, a complete search was not made with respect to claims 1-4, 10-15, and 17. With respect to claims 5-9, a complete search was made.